



DEPARTAMENTO DE FÍSICA  
UNIVERSIDAD DE SANTIAGO DE CHILE

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**Prof. BRIAN SKINNER**

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**“Many-particle interactions and compressibility, in electrons  
and in video games”**

Understanding the state of a many-electron system is a notoriously difficult problem, because it involves a competition between strong Coulomb forces and quantum-mechanical energies. In the first part of this talk, I will discuss how to think about the energy of a simple two-dimensional gas of electrons at zero temperature. I will show how this thinking helped to resolve a strange experimental paradox, in which a capacitor behaved as if it were much thinner than it actually was.

In the second part of the talk, I will show how these ideas from electron physics helped us to make progress in a very different setting, which may strike you as both unusual and very familiar.

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**Enlace plataforma Zoom:**

Interesados solicitar coordenadas Zoom a [lautaro.vergara@usach.cl](mailto:lautaro.vergara@usach.cl)